

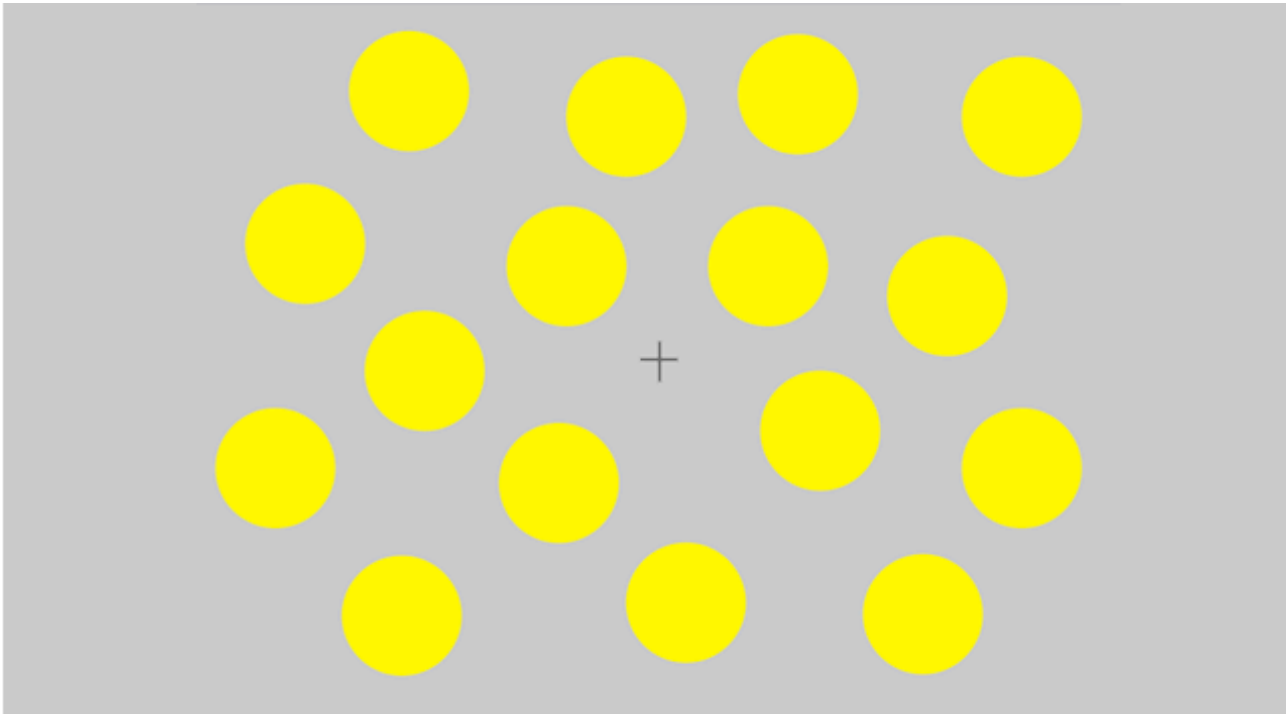
Tomas Navarro. LBDM Graduation project proposal.  
Working titles:  
*Holography, research project.*

Definition and self-statement.

I propose to improve and materialize my skills regarding videography in a new self-built and DIY oriented screening device: a lens-based hologram, involving lights, lenses and avoiding any surface of projection. Basically I'm presenting a multi-channel screening which is ordered in a certain way in order to achieve a true 3d volumetric experience.

The goal is to push the audience and myself to a singular experience in imaging due to the specific characteristics of its inherent features. The display should be able to shake our emotions through beauty, concept or context. I want to surprise the audience watching an extraordinary object the main characteristic of which is its basis on basic natural physics.

I want to inscribe the specific content (holograms) in the after-images (retina's residual images) as context. As I am working with the pure and simple perception of light I want to get my images close to the very simple forms of light-perception that human beings unconsciously deal with. That is the residual images of our retina: glowing lights, primarily spherical shapes and algorithmic structures. The specific nature of my research, concentrating light through lenses, allows me to refer to those very simple and involuntary forms of light depiction as a working frame.



*Optical Illusion based on "after-images".*

My project starts with the will to transcend my own understanding and expectations in relation to imagery, which is the most remarkable trail in my career as researcher. After being involved in different previous projects I realized that the logical next step of my work is to go further in understanding the physics of lenses and cinema display, which is truly the ground of my knowledge and the keystone for my specific researches in videography. As a student and artist I want to be able to set up original experiences in moving images, and to work with specific and self-invented methodologies.

I want to achieve, through the volumetric depiction of projected light, the practical execution of my knowledge materialized as DIY prototype or artwork, **outstanding a futuristic but low-cost proposal for imagery**. This outcome should improve my position as a developer of self-made video devices and video techniques. My final goal after investigation is to solidify my professional profile as a conceptual designer of images.

Due to the specific circumstances of my previous studies and professional career my investigation's methodology has the following highlights:

### 1. Medium economy.

A low cost approach to investigation. Work fast on ideas and sketches, understanding from the testers that I can easily achieve by myself and, once I understood what I'm doing and the possibilities open to me, archive the idea for future outcomes. Being aware that I'm working building specific features of images the achievements of one specific field could easily be applied to secondary and unexpected mechanisms and outcomes. These specific aspects of my methodology define strictly the kind of work I'm used to doing and the criteria by which I engage myself in my personal researches.

### 2. Self-guided researches and practices.

As personal motivation, regarding happiness in learning, I always approach specific struggles alone in the very beginning of any creative process. Mostly involuntary my work starts with the will to clarify my position regarding it. That means individually explore my capabilities through those practices.

### 3. Risk.

As explained in the first point my background as an art student and professional videographer has always been related to a risky attitude in practices. Basically I got feedback and a specific energy (needed) when I push myself to risky, unknown places. **Failure is then a natural process from which I'm able to extract the core of future achievements.**

Then I could stand out a strong personal preference of facing technology developing as personal economic cookbook learning process of self-technological achievements. As **rhetoric figure** I'd like to compare myself to an alchemist, which is basically a magician that understand the experimentation with a certain material as developing a mental methodology for metaphysical purposes.

The goal of the alchemist is immortality, that philosophically means the understanding all the things that universe posses, supreme wisdom, and only could be achieved trough the mental process of understanding what it exactly the substance of the material world in order to explore how to transcend the materiality of the universe.

The characteristic I want to stand out from this is that the output of experimentation is not a purpose by itself but merely a tool for a further revelation of wider knowledge, which is oriented to the simple individual improvement of the alchemist; so on, knowledge trough experience.

From Picatrix, 11th century Arab grimoire.

I decided to engage myself in this project as it fits both with the wanted achievements regarding lens physics and both personal criteria for research methodology and outcome execution. As personal motivation for practices is my wish to keep myself in the characteristics I used to work as I know it makes me much more able for achieve satisfactory, inspirational, unexpected, strong outcomes.

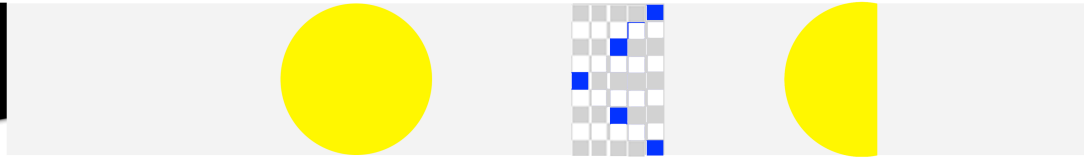
As the project is research based, both theory and practice will be executed through the points made above: quick sketch, test and analyses. Consequently the process will drive the devices and outputs strictly. Furthermore is my will to finally aim to the theoretical and parallel develop of a much more complex device as research's frontier.

"[T]he invention of an hypothesis in order to explain a certain natural process, then the arranging of conditions under which that process may intentionally be brought about in accordance with the hypothesis, and finally, the justification or refutation of the hypothesis, depending on the outcome of the experiment".

*From Picatrix, regarding the scientific experiment method.*

Trough an analog and homemade approach I'll investigate the materialization of a 3d model projection in space, avoiding any surface of projection. The hologram I want to achieve is not involving mirrors or lenticular surfaces but a high-density air medium, which means strictly smoke-saturated air. Due to my proposal is a research project about optical screening technology I'd like to show now here just the first approach as analog laboratory research. The first step: conceptual and pragmatistical investigation of a true holographic lens-based projection without any projected surface.

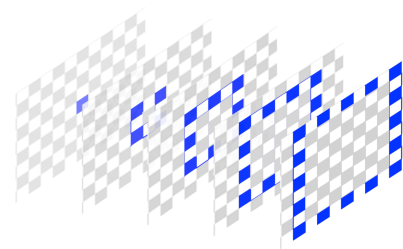
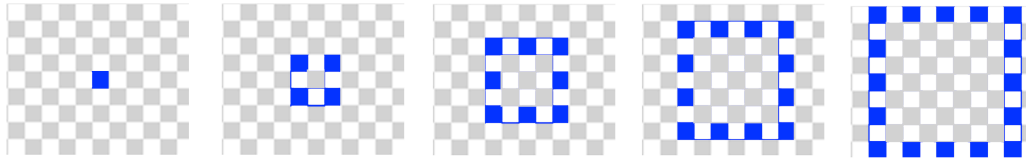
tester 1



Source of light

Lens based  
reticula

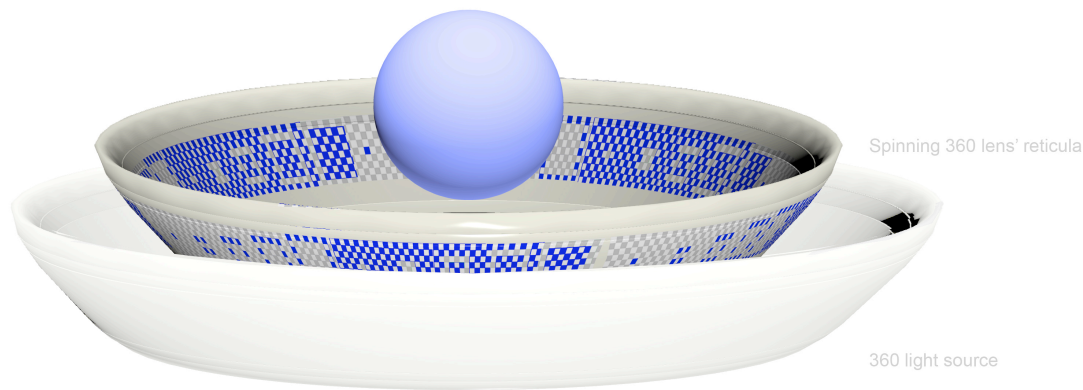
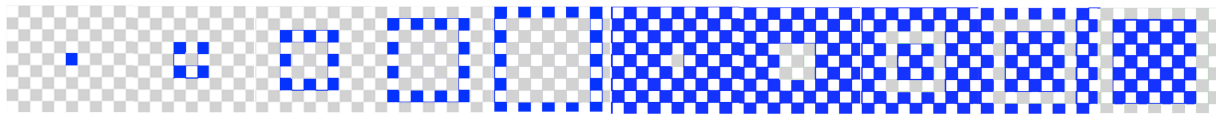
Volumetric semi-  
sphere/  
condensed light



*Concept sketches for condensed light grid that depicts a semi-sphere volume.*

Basically the idea is to work with a grid of concentrated-light pixels attached to a source of light in which each pixel, further than depict colours and luminance also describes the depth relative of those pixels onto space (z axis). Each light pixel is formally a tube, that actually works as simple collimation device, that also has a plano-convex lens in a specific distance from the source of light. In that way, the more is complex the grid, the more It'll be able to concentrate points of light following an specific order in the three Cartesian axis of the space (x,y,z).

Tester 2



*Concept design for spherical light-condensed projection.*

As soon I'll starting collecting feedback from my testers I'll improve theoretically the prototype as concept sketches making it as complex as possible in a theoretical way in order to explore deeply all the deductible ideas from the first experiences and move then to the next step. The idea is to aim high in order to collect data about related practices, other devices already developed, high-tech possibilities and then come back to improve the first tester with better and more accurate ideas.

During this year my specific goal is to develop the first and second testers, that should finally work during the exhibition as an unique stand-alone artwork.

Timeline	Task/Activity
September	Presented "Master of the world" Experimental animation project.
October	Finding the core of my previous practices.
November.	Finding the core of my previous practices.
December.	Presenting this actual project in his first form and rebuilding the proposal. Theoretical developing of testers and experiences with magnifying glasses, tubes and smoke.
January.	Resubmission of the proposal and starting much more specific expenses and laboratory research.
February.	Research: Developing first tester.
March.	Analysis of outputs and sketch a more accurate second outcome or further ideas.
April.	Building second outcome.
May.	Building and experimenting with second tester.
June.	Experimenting with second tester and graduation show preparations.
July.	Graduation show.

## Motivation/previous practices

As introduction of this section I'd like to explain first of all the following idea:

Holography is a conceptualization of my previous work and intuitively I perceive it as a good and mature direction for my work related to what I expected from it. From an artwork, as audience, I expected some singular features I could sum up as: simplicity, significance and excellence.

At that point I should clarify that Land Art artist totally satisfy those personal expectations regarding artwork's qualities. Dennis Oppenheim's early artworks are simple, meaningful by itself and well communicated among format and content. So, my project is moving now into a sharp and specific direction, which is also new and fresh, engaging, for me and optimally will set up an interesting experience for the audience as visual piece.

A ball of concentrated light, as illustrated in my mood board for tester 2, is just a beautiful gift to offer to the audience. From watching it I can understand what it is formally, even technologically, as well as being involved in the extra-dimension that the object inherently behave; that's the extraordinary characteristic I was trying to extract in the beginning of this document.

Basically I'm presenting a multi-channel screening that is aligned in a certain way in order to build a true 3d volumetric experience; the goal is to make it strong enough by itself in order to jump to the excellence level, which I never achieve before as artwork with my previous practices in LBDM.

Far away from my aesthetically choices my will about with being involved in a low-tech DIY hologram is also related to my work's circumstances now. To put it in a nutshell: I'm tired about the mediocrity we're facing in Spain right now. Being aware of that situation, and also with the eyes dropped on further studies or a different job, I decided to move to something much more experimental, free in terms of formalization and consequently in terms of conceptualization. Is a new proposal of an existing device understood trough "**light-art**" and videography practices. That puts my work, knowledge and profile, in a interesting place, far away from pop promos ☺.



In order to give you a example that should illustrate this statement is my wish to synthetize then the work of two men that inspires my research in two curious different but correlated ways:

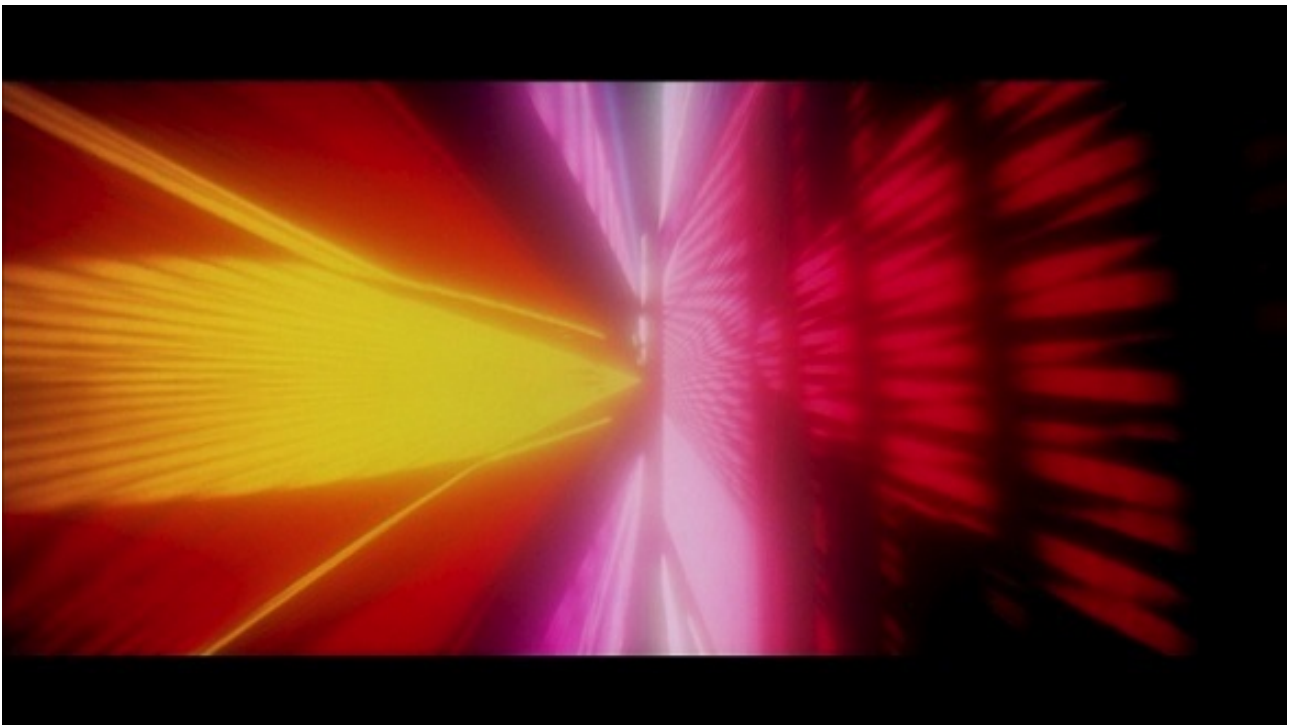
Olafur Eliasson.

The Danish artist's work, as I deduced from Fundacio Miro's exhibition "The nature of things" in 2008, is, as best definition, simply related to light's physics, refusing high-tech performances but inherently calling them as optical devices are always engaging as illusion or expanded-reality looks-like.



Douglas Trumbull.

The north-American cinematographer, special-effects inventor and filmmaker is interested in screening new features and "never-seen before images". The understanding of future ways to experience cinema is the most remarkable idea in his work, being consequently investigated by himself the 3d stereoscopic images, the high-rate ultra-sharp cinema screening and the large cinema prints. His profile is complete by a skilfully business attitude and the consequently hi-tech machinery achievements.



Furthermore, regarding the methodology and outcomes of my previous practices I want to sketch them up by analysing two practical cases of how my experiences could affect, in long term, my professional outcomes. This is the demonstration of the productivity related to the methodology and self-statement enounced above.

Macro-adapted lens.

From experiments to National TV identity short pieces.

With my first video camera, Sony Hi8, somewhere in 2003, I began to adapt old photo lens to the camcorder. Suddenly I discovered that I was able to focus extreme close ups, macros. During those years I applied the DIY trick to my VJing visual performances, being able to shoot rare footage, with a shade of microscope mood.



Years later (2010) I was engaged by El Terrat Producciones for producing small identity video pieces for TDT national channel. I applied again the technique to Panasonic P2 HD camcorder, with better photo lenses, so this time I was able to offer audience high performance images, alternative aesthetic shooting, without using any special equipment but simply modifying our semi-professional video cameras through DIY practice. Therefore a low-cost approach to filmmaking was able to satisfy the exigency of TV primetime broadcasting.

Inductive motion blur.

From experiments to music video (to be broadcasted in TV soon).

During the last year I was involved in motion blur experimentation, trying to achieve an outcome close to slit-scan photography, but applied to moving images. Finally I was successful mixing lighting achievements, camera control and postproduction features.



Recently I improved the look and content of those experiments applying them to a hip-hop music video, which is a format opened for unusual outcomes. As the technique is now well developed and **coherently applied** the audience will be engaged therefore for this new aesthetic. Experimentation, therefore, allows me to achieve easy DIY tricks for release unusual and engaging images inside a low-cost and laboratory-based methodology.

## Outro

I'm establishing here the main key points of my work, trying to understand which is important in my methodology and what is unproductive. My goal for this year is to achieve knowledge in what I understand screening will be in the next years: that's holography, new projection displays that should involve audience in a full immersive audio-visual experience, even tactile.

Then, being aware of my capabilities, I propose specific but free form experimentation in order to investigate not the real execution of a high-tech hologram but the **visual concept regarding holographic screening** through a DIY practice. To put in a nutshell: my investigation will be much more close to an artistic approach to physics (Olafur Eliasson) than mainstream cinema technologic achievements (Douglas Trumbull).

The economic and DIY approach of my work is not related to the impossibilities of going further with technology but just a strong desire to manipulate my immediate reality, being coherently conscious of my limitations and possibilities. As I mentioned above the role I want to play with my practices in LBDM is the alchemist, which devote himself to experimentation. The failure is not a science deductive mistake but a way to understand **metaphysics** through meditation, trance, philosophy and finally magic.

## Bibliography

### Phylosophy and perception

- Aristotele's Poetica.
- Martin Heidegger's Being and time.
- Carlos Castaneda's Journey to Ixtlan.
- Aldous Huxley's Doors of perception.
- Jose Luis Borges y Adolfo Bioy Casares' Libro del cielo y del infierno.
- Picatrix, 11th century Arab grimoire.

### Modern imagery and photography

- Paul Virilio's The machine of vision.
- Roland Barthes' Le chamber clair.
- Rossalind Krauss' The optical inconciouss.
- Walter Benjamis's The work of art in the age of its technological reproductibility and other writings on media.
- Walter Benjamin's A short history of photography.

### Art

- Anna Maria Guasch's El arte ultimo del siglo XX: del posminimalismo a lo multicultural.
- Joseph Kosuth's Art after philosophy.
- Andy Warhol's from A to B and back again.
- Lucy Soutter's Dennis Oppenheim article from Yale University press.
- Germano Celant's Oppenheim's suspense.